

## Short Communication

# FETAL MUMMIFICATION IN ONE OF THE TRIPLET KIDS -A CAUSE OF DYSTOCIA IN A NON-DESCRIPT DOE: CASE REPORT

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**ABSTRACT:** A non-descript doe in its 7<sup>th</sup> parity was presented with the history of 5 months and 5 days gestation period showing futile signs of imminent kidding with teat engorgement and vaginal discharge from last 12 hours but no delivery of fetus. The gynecological examination of the doe revealed an engaged fetus in the birth canal with simultaneous presence of a hard-rubbery structure. Gentle traction was applied using small eye hook following proper lubrication of the birth canal and triplet comprising of two mature but dead and one mummified fetus were delivered. The case highlights the rare occurrence of one mummified fetus as co-triplet with two mature fetuses in the simultaneous presentation causing dystocia in doe.

**Key words:** Doe, Triplet, Mummification, Obstetrical disorder, Dystocia, Simultaneous presentation.

Fetal mummification is a rare obstetrical disorder in the doe which occurs as a result of fetal death in the middle or last third of the gestation followed by failure of abortion, persistence of corpus luteum, absorption of fetal and placental fluids and involution of maternal placenta (Roberts 1971). The etiology of fetal mummification in does is ill defined with possible infectious causes like toxoplasmosis, Chlamydophilla, border disease and *Coxiella burnetti* (Edmondson *et al.* 2012). Single or multiple fetuses can undergo mummification with simultaneous presence of normally developed fetuses in litter bearing species like swine, bitch and cat but occurrence is rare in other species like sheep, goat and cattle (Roberts 1986). Contrary to cattle and mare, the mummified fetus is not responsible for prolongation of the gestation period and usually get aborted spontaneously in the sheep and goat or represented as a cause of dystocia (Lefebvre *et al.* 2015). Hematic type of mummification is usually reported in the ruminants in which a chocolate brown colored sticky substance covers the whole mummified fetus while in the papyraceous type

the fetus is shriveled as a dry paper (Long 2009). The fetal mummification in sheep and goat can be found in singletons as well as a single fetus in a twin. The reports about occurrence of fetal mummification as triplets in the doe are little in the available literature. This article highlights the concurrent presence and per vaginal delivery of the triplet fetuses in a doe comprising one mummified and two mature dead fetuses.

### Clinical observation and treatment

A pluriparous non-descript doe in its 7<sup>th</sup> parity was presented to the referral veterinary polyclinic (RVP) of the institute with history of completed gestation period. The goat was showing symptoms of imminent kidding with engorgement of teat and vaginal discharge from about last 12 h. The owner reported that first water bag (allantochorion) ruptured around 5-6 h ago and animal was straining continuously without delivery of the fetus. The general clinical examination of the animal revealed normal body condition with rectal temperature 102 °F and normal respiration. On gynecological examination, it was

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**Fig.1.** Pluri-parous doe suffering from dystocia presented to the VGO unit.



**Fig. 2.** Two mature and one mummified fetus delivered by the doe.



**Fig. 3.** The mummified fetus.

observed that one fetus was engaged in the birth canal along with a rubbery mass with complete cervical dilatation. Following proper lubrication of the birth canal, small eye hook (blunt type) was applied in the right eye socket of the fetus. The limbs were completely extended and fetus was extracted out using traction on limbs and eye hook, together with this brownish chocolate colored fetus also came out which was confirmed as hematic mummification. After delivery of the fetuses, the birth canal was again checked for presence of any other fetus and another fetus with complete extension of the forelimbs was found. The third fetus was also extracted out with slight traction. On examination, two dead fetuses were observed to develop normally and death was suspected due to prolonged period of kidding and simultaneous presence of mummified fetus.

The doe was provided necessary post-kidding treatment consisting of broad spectrum antimicrobial Enrofloxacin (Quintas® - Intas, India) @ 5 mg/kg body weight (b. wt.) intramuscular (IM), meloxicam (Melonex® - Intas, India)

@ 0.5 mg/kg b. wt. IM, one intrauterine bolus (Cleanex® - Dosch, India), 500 mL Normal Saline (NS) and 500 mL of Dextrose Normal Saline (DNS) once a day (OD) for five days. Along with this, pheniramine maleate (Avilinvet® - MSD animal health, India) @ 1 mg/kg b. wt. IM OD for three days and a uterine cleanser (Uterotone® - Cattle remedies, India) @ 50 ml per orally twice in a day for 5 days was prescribed. The animal was discharged post 2 h of the delivery and owner was advised to follow prescribed treatment and to provide easily palatable feed with ad-libitum quantity of fresh drinking water. The follow-up of the case assured the successful recovery of the dam.

## Discussion

Fetal mummification is a rare obstetrical disorder in the doe causing the economic losses in the terms of fetal loss as well as treatment cost to the poor farmers. Fetal mummification as a cause of dystocia in doe has been reported with few literatures. Dystocia due to single mummified fetus (Bisla *et al.* 2018), mummified fetus co-twin with normal dead fetus (Ogbu *et al.* 2011, Bawaskar *et al.* 2018) or normal live fetus (Bhardwaj and Kumar 2014, Reddy *et al.* 2017, Hemalatha *et al.* 2018) and mummified fetus as a co-triplet with fetal monster (*Perosomus elumbus*) and normal live fetus has been reported. Therefore, previous literature revealed that fetal mummification as a cause of dystocia was more commonly found in the twin pregnancies as compared to singletons (Tutt 1991). The above studies have reported many incidences of fetal mummification as co-twin with the normal or dead but complete developed fetus but the reports on the fetal mummification in co-triplets are meager (Fig. 1-3).

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